G. R. S. III—1] 1919. 20

GENERAL AND REVENUE SECRETARIAT.

(G. Rev)

NOTES.

File No. 12-19:16 -19 52-1-16

FILE HEADING.

Invention for improvements in mounting and feeding rock-drills, Underground manager of Ferreira Deep Ltd., Transvaal Province, Union of South Africa

From

Messrs Rumpf and Son

No. Letter Dated 8th July 1916 Received 11th July 16

Diary No. 774	Enclos. 1 Spare Copies.	Serial No. 1

BRIEF ABSTRACT OF LETTER.

Forwards an application with R.C.F. for leave to file specification of the above invention and states that the Power will be sent later.

NOTES AND ORDERS.

The amount of R.C.F. has been received. Submitted with a draft to the Registrar and the Treasury Remittance Register for orders

15.7.19

Rec'd 774

NOTES—First Sheet.

G. R. S. III-2.

7-14 — U 5620 — 2

General and Revenue Secretariat. | G.M. File No 12 of 1919.

Serial No.	
2	To the D. G. of Education G. 1825 dy 24. 7. 1919 Forwards for report of the G. M. C. Mechanical Engineering Scholarship application recd: to the D. C.
3	Treasury Remittance Receipt no 172 dy 22/7/19 Acknowledges the receipt of Rs 10/-
4	From Messrs Remfry Son, Calcutta Letter dy 30-12-19 Forwarding the Power of Attorney authorising them to act on behalf of the applicants and advising remittance of Re 1/- for Stamp duty. To, The Cash section for kindly stating whether the fee of Rupee One has been received To Cash Section. 7.1.20 [illegible] ~~Rs 31 has been received~~ A sum of Rs 31/- has been received here on 6.1.20 [illegible] 13/1/20 10/1 A draft to the Superintendent of Stamps asked 13.1.20 [illegible] Issue dcg 13/1/20.

NOTE—Contn. sheet

11560

G. R. S. III-2]

General and Revenue Secretariat. | File No. 12 of 1919.

Serial No.	
5	To the Superintendent of Stamps. S. 16924 dt 23.11.20. Forwards the power of attorney for being impressed with the [illegible] stamp.
6.	From the Superintendent of Stamps. Letter No. 259 dated 27th January 1920. Returns duly impressed with the adhesive stamps the powers of attorney referred to in the above (or) in Sl 3 of Jan 1919 (vide up. below). A draft acknowledging is put up. 30.1.20 Issue 31/1/20
7.	To the Superintendent of Stamps S. 17859 dt 4.2.1920 Acknowledges the receipt of the attorney ref'd to in Sl 6
8	From The D.G. of Education Letter no 91 dt 3.3.1920 With reference to Sl: 2. forwards a copy of letter no 842 dt 16.2.1920 from the Supt Mechanical Engineering School, stating that he has no personal knowledge of the machine and that he finds no time to go to Kolar Gold Fields and examine it. A draft to the Chief Inspector of mines is put up. 8/3/20 Issue 9/3/20.

NOTE—Contn. sheet.

G. R. S. III-2]

16348
15402

4

General and Revenue Secretariat.

fm File No. 12 of 1919.20

Serial No.	
9	To ,, The Chief Inspector of Mines G. d/1274 of 15. 3. 1920 Forwards for his opinion the ,, Gr. : refs: to in 6C/1
10	From The Chief Inspector of Mines. Letter no. 934 dated 19. 3. 1920. Returns the application referred to in el. 9 with his opinion that Mr. Segnin Fisher's invention does not infringe any existing patents, & present being used on the K. G. F. and that leave to file a specification of the invention may be granted, provided that no existing patents are infringed. Submitted with a draft for approval. mjp. 23.3.20. (2nd member). dcg 23/3/20.

6139-152
24-3-1920.

Noted dcg

Draft approved.
This ought to have been referred to the Sc. Bd. for opinion
26. 3. 20.

Issue
dcg
26/3/20

Submitted.
A draft forwarding the usual order authorising the applicant to file a copy of the Specification is

NOTE—Contn. sheet.

G. R. S. III-2]

General and Revenue Secretariat.

File No. 12 of 1919-20

Serial No.	
	put up for approval Issue 1.4.20 dcs 3/4/20.
11	To Messrs Remfry & Son Calcutta G.23a/94 dt 10.4.20 Authorises the filing of the specification of the invention refd to in 8/1.
12	To the Same Gr. G.23a/95 dt 10.4.1920. Forwards Govt (8/11) authorising the filing of the specification for transmission to the Patent Office.
13	From Messrs Remfry & Son Calcutta Letter dated 14.4.1920. With reference to 8/11, forward 4 copies of specification and remit the filing fee Rs 52 and request that the certificate at foot of G.O. enclosed may be filled in and signed. The money has been duly received on 19.4.1920. Submitted with the usual drafts and the G.R.R. duly entered. The certificates at foot of the draft and fair copy of the G.O. dated 10.4.1920 require initials and signature respectively. Issue 20.4.20 dcs 20/4/20

Vide G.R.R. put up in G. in file No. 173-19. Flags E & F.

NOTE—Contn. sheet.

G. R. S. III-2]

1804

6

General and Revenue Secretariat.

G.S. File No. 12 of 1919-20.

Serial No.	
	To
14	The Compiler Mysore Gazette S. 24144 dt. 22.4.20. Notifies the filing of the Specification of the invention refd. to in M 1
15	To Messrs Remfry & Co Calcutta S. 24145 dt 22.4.20. Forwards a copy of notn: (M14) and the T.O. (M11) for being sent to the party concerned.
16	To The Curator Govt. Museum " Chief Engineer of Mysore " Secy. to the Bd. for Chemical Anal. Ser. S. 24146-8 dt 22.4.20. Forwards for record in his office copy of the specification refd. in M 1

CHIEF SECRETARIAT. RECEIVED Depts. 27 APR 1920

NOTE—Contn. sheet.

DIARY NO. 774

REGISTERED.

Gl.m 12-19-1

To

THE ~~CONTROLLER OF PATENTS~~ SECY TO THE GOVT OF MYSORE,
~~PATENT OFFICE~~, GENL. & REV. DEPTS.,
~~CALCUTTA.~~ BANGALORE,

FROM MYSORE.

REMFRY & SON,
PATENT & TRADE-MARK ATTORNEYS,
897 CALCUTTA.

Dated CALCUTTA, the 8th July 1919.

CHIEF SECRETARIAT. IV ... pts. 11 JUL 1919

DEPT.	P.	FILE LR.	M.
FILE INDICATION			
Mysore Pats. (Genl)			

re S. FISHER. (MYSORE)

No. *dated*

We have the honour to forward herewith an Application of SEGUIN FISHER, Underground Manager, of Ferreira Deep Limited, Johannesburg, Transvaal Province of the Union of South Africa, for leave to file a Specification under Part I of the Mysore Inventions and Designs Regulations, 1894, in respect of an Invention for "IMPROVEMENTS IN MOUNTING & FEEDING ROCK DRILLS", and solicit the favour of your submitting the same to H.H. the Dewan.

The Power of Attorney under which we are acting will be forwarded later.

A Post Office Order for Rs.10/- is sent to-day.

We have the honour to be,

Sir,

Your very obedient servants,

Remfry & Son

Enclos:-
Appln.

By P.O.O:-
Rs.10/-.

MYSORE APPLICATION.

I.M.B.

P/O (Genl.) 1,000—7-6-18 [4-2-14—17-3-11].

Rs. 10 As. — re S. Fisher (Mysore)
(as per our letter of date 8/7/19).

Remitter.

To J. Secretariat for
kind necessary
action
12/7/19

CHIEF SECRETARIAT
IN
12 JUL 1919

G. R. S. VI.—8-v/16]

9

DRAFT.

SUBJECT.....

.....

.....

Section. 4 (m)
File No. 12-19
Serial No. 2

Diary No. of letter replied to.....774.....

No. 41825 (3)

To

The S. G. of Education

.....

.....

GENERAL AND REVENUE SECRETARIAT,

( )

the.....*191* .

Date of issue.....24/7/19.....

Signed by.....

Has the honor to forward herewith

~~for report~~ under Sec. 6, Cl. (2) of the Mysore Inventions and Designs Regulation, XI of 1894, an application for leave to file a specification of an invention for 'Improvements in mounting and feeding Rock-drills' by Mr S. Fisher, Underground manager of Ferreira deep Ltd Johannesburg Transvaal and to request that the opinion of the Superintendent, Mechanical Engineering School, Bangalore may kindly be obtained and forwarded'

By Order,

for 1917

Secretary to Government.

15.7.19

24/7/19

1917

10

G.R.S. III—3]

Routine Notes.

[To be used only for notes, requisitions, etc., not intended for permanent record.]

Inland

Gni 12-19-3

Duplicate.

(To be returned to the General and Revenue Secretariat for being placed in the file.

1. No. 172

2. Date of Remittance 17th July 1919

3. From whom received Messrs Remfrey and Son Calcutta

4. Date of receipt of amount in the General and Revenue Secretariat 18th July 1919

5. On what account App^n fee for Gni no 19 1919 sent by mr J. Fisher Independent manager Johannesburg Transvaal.

6. Amount (in figures and words) Rs 10/- Rupees Ten only

7. The head to which it should be credited.

(To be filled in by the Treasury.)

Secretary to Government,
~~Treasury~~ ~~General Department.~~

The above amount has been duly received and credited in the Treasury on this date.

Date 22/7/19

Hd. Acctt. *Treasurer.* *Try. Officer.*

N. B.—Both the counterfoil and the duplicate to be returned to the General and Revenue Secretariat duly signed by the Treasury Department.

N.B.—Should routine notes be written on small slips, the notes must be copied, or slips pasted on this form.

11560

DIARY NO. 12-19

19 -19

SECTION
FILE NO.
SERIAL NO.

REGISTERED.

To

THE ~~CONTROLLER OF PATENTS~~, SECY TO THE GOVT OF MYSORE,
~~PATENT OFFICE~~, GENL. & REV. DEPTS.,
~~CALCUTTA~~. BANGALORE,

16960

MYSORE.

FROM

REMFRY & SON,
PATENT & TRADE-MARK ATTORNEYS,
CALCUTTA.

Dated CALCUTTA, the 30th December 1919.

DEPT.	P.	FILE LR.	M.
FILE INDICATION			
Mysore Pats. (Genl)			

SECRETARIAT
6 JAN 1920
MINOR Depts.

SIR,

re S. FISHER. (MYSORE)

No. *dated*

In continuation of our letter dated 8/7/19, we now beg to forward herewith Power of Attorney under which we are acting and we solicit the favour of your having such Power of Attorney stamped Re.1/-.

A Post Office Order for Re.1/- is sent today.

We have the honour to be,
Sir,
Your very obedient servants,

Enclo:-
P/A.

By P.O-O:-
Re.1/-

I.M.B.

P/O (Genl.) 1,000—7-6-18 [4-2-14—17-3-11].

G. R. S. VI—S·V/14]

DRAFT.

SUBJECT.....

.....

.....

Section. fm
File No. 12-19
Serial No. 5

Diary No. of letter replied to.....11560

1 @ 16924 one Rs/-

GENERAL AND REVENUE SECRETARIAT
( )
, the *191*

Date of issue.....23/1.....

Signed by.....M Des.....

To

The Superintendent
of Stamps
.....

Has the honor to forward herewith a Power of Attorney executed by Mr. S. Fisher Underground Manager of Ferreira Deep Ltd Johannesburg, Transvaal constituting messrs Remfry and Son, Calcutta as Agents in respect of his ~~their~~ invention for "Improvements in Mounting and feeding Rock Drills" and to request that the same may be impressed with the Mysore General Stamp of the value of Rupee One, also herewith forwarded, and the Power returned to this office.

By Order,

Des 23/1/20

For Chief Secretary to Government.

23/1/20

13 1924
DIARY NO.

Stamp 38]

WD 02702—GPB—100—16-2-17

No. 259
Enc. two papers

OFFICE OF THE SUPERINTENDENT OF STAMPS IN MYSORE,

Bangalore, dated 26/27 January 1920.

8 JAN 1920

FROM

M. Srinivasamurti, ESQ.,

Superintendent of Stamps in Mysore.

19483

To

C. S. Balasundaram Ayy, ESQ., B.A.,
Chief Secretary to the Government
of Mysore Bangalore.

SIR,

I have the honor to return herewith duly stamped the two powers of Attorney received today with your Nos G. 16924/12-19-5 and 16928/144-19-3 dated 23d January 1920, and to request an acknowledgment for the same.

I have the honor to be,
Sir,
Your most obedient Servant

M. Srinivasamurti

Superintendent of Stamps
in Mysore.

MYSORE.

14

GOVERNMENT OF MYSORE 26 JN 20 ONE RUPEE

.POWER of ATTORNEY.

In the Matter of the Invention and Designs Regulation, 1894, of the Government of Mysore and in the Matter of SEGUIN FISHER, Underground Manager, of Ferreira Deep Limited, Johannesburg, Transvaal, Province of the Union of South Africa, an Inventor.

I, the abovenamed Seguin Fisher, do hereby retain, constitute and appoint the Partners or Partner for the time being of the Firm of Remfry & Son, of Calcutta, British India, as my Agents and Attorneys to apply for and obtain from the Government of Mysore and keep in force an Exclusive Privilege or Letters Patent for "IMPROVEMENTS IN MOUNTING & FEEDING "ROCK DRILLS" and I authorise them or either or any of them to sign my name to such papers and writings and do such acts regarding the same, including the appointment of a substitute or substitutes, as may be necessary or expedient.

Dated this 11th day of September 1919.

SIGNED, SEALED and DELIVERED at Johannesburg in the presence of

S Fisher

Witnesses :- Rita Yule

Beatrice Howe.

15

G. R. S. VI—G/32]

SUBJECT.....

.....

.....

2 Copies

Diary No. of letter replied to 12924

Section G. R.

File No. 12-19

Serial No. 7

GENERAL AND REVENUE SECRETARIAT

( )

the 191

No. 41785

To

The Superintendent of Stamps

Bangalore

Date of issue 4/2

Signed by [signature]

Sir,

I am directed to acknowledge the receipt of the powers of attorney duly impressed with the Mysore Stamps and forwarded with your letter No. 259 dated 26/27th January 1920

I have &c.

2nd 31/1/20

For Chief Secy: to Govt.

[signature] 30/1/20

[signature] 2/2

over.

Postal Address—Post Box No. 8.
Tel. Address, Education, Bangalore.

28650

15402 16

Department of Education,
Government of Mysore.

DIARY NO.

No. 91/H.C. of 19-20.

ENCL. 3

Ch Sec Dt MAR 1920

OFFICE OF THE INSPECTOR GENERAL OF EDUCATION IN MYSORE.

Bangalore, Dated 3rd March 1920.

FROM

C. R. REDDY, ESQ.,

INSPECTOR GENERAL OF EDUCATION IN MYSORE.

SECRETARIAT TO GOVT. OF MYSORE
IV 30
6 MAR 1920
Rec'd

TO

C.S.Balasundaram Iyer, Esq., B.A.,
Chief Secretary to the Government of
His Highness the Maharaja of Mysore,
Bangalore.

SIR,

With reference to your letter No. G. 1825/G.M. 12-19-2 dated the 24th July 1919 forwarding an application to file a specification of an invention for "Improvements in Mounting and Feeding Rock-Drills" by Mr. S. Fisher, Underground Manager of Ferriera Deep Ltd., Johannesburg, Transval and requesting that the opinion of the Superintendent, Mechanical Engineering School, Bangalore, may be obtained and forwarded and reminder thereon, I have the honor to forward herewith copy of letter No. 842 dated 16th February 1920 from the Superintendent, Mechanical Engineering School, reporting that as he had no personal experience of the Machine, he wanted to visit the Kolar Gold Fields to see its working before giving his opinion and that he was unable to do so owing to pressure of work and returning the application stating that in the absence of definite knowledge he would not offer any opinion on it. The application with its enclosure is returned herewith.

In this connection I would add that the University Staff would be more competent to pronounce an opinion on these technical questions.

I have the honor to be,
Sir,
Your most obedient servant,

C R Redd

INSPECTOR GENERAL

cc. 3/

Encl 602 8 17

Copy of letter No. 842 dated 16th February 1920, from the Superintendent, Mechanical Engineering School, Bangalore, to the Inspector General of Education in Mysore Bangalore.

With reference to correspondence ending with your No. 91/H.C. of 19-20 dated the 10th February 1920, calling for a report about the specification of an invention for "Improvement in Mounting and Feeding Rock Drills" - by Mr. S. Fisher, I have the honor to submit that I have no personal experience of Rock Drill.

I beg to state in this connection that I wanted to visit Kolar Gold Fields to see the machine while working and then submit the report called for. But owing to pressure of work, I was quite unable to visit the place till now and in the absence of definite knowledge I would - rather not offer my opinion on it.

The file of papers sent with your No. 91/H.C. of - 19-20 dated the 6th August 1919 are herewith returned.

C O P Y

Inspector General.

CS. 3/3.

3.3.20

G. R. S. VI.—8-v/16] 9/3 **DRAFT.** 19

SUBJECT.....

.....

.....

Section. J. M
File No. 12-19
Serial No. 9

Diary No. of letter replied to 1540 ✓ No. 52174 Encl

To

The Chief Inspector of Mines

.....

.....

GENERAL AND REVENUE SECRETARIAT,

( )

, *the*.....*191*

Date of issue..... 15/3

Signed by..... M' Dcg

Has the honor to forward herewith for report under Sec. 6, Cl. (2) of the Mysore Inventions and Designs Regulation, XI of 1894, an application for leave to file a specification of an invention for

'Improvements in mounting and feeding rock-drills' by Mr. Legrin Fisher, Underground manager of Ferreira Deep Ltd. Johannesburg, Transvaal Province of South Africa

By Order,

Dcg
9/3/20

For Chief Secretary to Government.

M Hy 8/3/20

M 9/3

DEPARTMENT OF MINES AND EXPLOSIVES.

Office of the Chief Inspector of Mines in Mysore.

Dated Oorgaum, 19th March 1920.

No. 934

Encl. 1 file.

DIARY NO. 16818

From

L. H. Beckwith, Esq., A. R. S. M.,

Ag: Chief Inspector of Mines in Mysore.

To

C. S. Balasundaram Iyer, Esq., B. A.,

Chief Secretray to the Government of

His Highness the Maharaja of Mysore,

B A N G A L O R E.

CHIEF SECRETARIAT. IV M:FIOR Depts. 22 MAR 1920

Sir,

With reference to your docket No. G. 21274- G. M. 12-19-9, dated 15th inst., I have the honour to return, herewith, an application from Mr. Seguin Fisher, Underground Manager, of Ferreirs Deep Limited, Johannesburg, Transvaal, Union of South Africa, for leave to file a specification of his invention for "Improvements in Mounting and Feeding Rock Drills". This invention does not infringe any existing patents at present being used on the Kolar Gold Field. It is quite possible that the invention may be of use in stoping operations in these mines should light hammer drills come into more general use.

The application for leave to file a specification of his invention may be granted to Mr. Seguin Fisher, provided that no existing patents are infringed.

I have the honour to be,

Sir,

Your most obedient servant,

L. H. Beckwith.

AG. CHIEF INSPECTOR OF MINES

IN MYSORE.

M.S.

(11)

A P P L I C A T I O N

TO THE DEWAN OF MYSORE,

The Application of SEGUIN FISHER, Underground Manager, of Ferreira Deep Limited, Johannesburg, Transvaal Province of the Union of South Africa, for leave to file a Specification under Part I of the Mysore Inventions and Designs Regulation, 1894.

The Applicant is in possession of an Invention for "Improvements in Mounting & Feeding Rock Drills"; he is the Inventor thereof; and to the best of his information and belief, the Invention is new within the meaning of Part I of the Inventions and Designs Regulation, 1894, and no circumstance exists which, if the Applicant is authorised to file a Specification and files it in accordance with that Part, will disentitle him to an Exclusive Privilege thereunder in respect of the Invention.

The Applicant has not applied for a Patent in the United Kingdom in respect of this Invention.

The Applicant has not applied for a Patent in British India in respect of this Invention.

The following is a description of the Invention:-

SOLICITORS & PATENT AGENTS
REMFRY & SON
CALCUTTA

The present invention relates to means for mounting rock drills and for feeding them forward during drilling.

An object of the invention is to provide a mounting which is portable and is easily rigged. Another object is to provide a mounting by which various positions and directions of the holes to be drilled can be readily attained. A further object is to provide a mounting suitable for carrying light hammer drills known as jack hammers. A further object is to arrange for holding such a drill to its work and feeding it forward with adjustable pressure and without subjecting the operator to injurious vibration.

In the accompanying drawings,

Fig. I is a projected view of a mounting for rigging a hammer drill in a stope.

Figs. II and III shew modified forms of the spikes for holding the bar or frame.

Fig. IV shews an alternative arrangement for adjustably fixing the cradle of the drill.

Fig. V is a longtitudinal section of the cradle and allied parts.

Fig. VI is a similar view to Fig. V but shewing the parts relatively displaced.

Fig. VII shews a feeding tool.

Fig. VIII shews a modified form of the feed device.

Fig. IX illustrates a water feeding arrangement.

Referring to Fig. I, the mounting comprises a bar or frame 1 adapted to be rigged between the hanging and foot walls of the working place. For this purpose it is provided with a spike or spikes 2, 3, at the ends. Preferably there is a single spike at each end, said spikes being alined so that the bar may pivot about their common axis.

One or each of such spikes is made free for limited endwise movement relatively to the frame so that the spike may be hammered into engagement with the rock without displacing the frame. Thus the spike 2 is free to slide in the frame, and is formed with a shoulder 4 on which the frame bears; its outer end 5 being pointed and hardened to penetrate the surface of the rock. Its inner end is fitted with a pin 6 to prevent the spike from falling out of place, and is also hardened. The frame 1 is shewn as looped or divided between its ends, leaving the inner end of the spike exposed so that it may be struck by a hammer. It is thus free to respond to the hammer blow independently of the mass of the bar 1 and is therefore readily driven into hard rock sufficiently to hold the bar against slipping under lateral thrust.

One of the spikes is further adapted to be forcibly projected for securing the bar in place. The spike 3 is for this purpose screwed through a nut 7 mounted on the bar, and is fitted with a handle 8 for turning it. The desired free endwise movement of this spike is provided for by making the nut to seat loosely on the bar.

A pin 9 prevents the spike and nut from falling out of the bar. Rotation of the nut is prevented by providing it with feathers 10 which engage slots 11 in the bar. This spike is first hammered into the rock and then screwed out to enter the depression thus made in the rock, and so secure the bar in place.

Fig. II shews an arrangement in which the spike 12 is projected by means of a hard steel wedge 13 passing transversely through the bar 1. By striking the larger end 14 of the wedge, the spike is forced into the rock, the wedge also maintaining the spike in place, and thus performing the same functions as the screwed spike 3, Fig. I. This construction is applicable to a straight bar which does not permit the inner end of the spike to be exposed for the direct blow of a hammer. Another arrangement applicable for a straight bar but exposing the spike for a hammer blow is shewn in Fig. III. It consists in mounting the spike 15 on a part 16 hinged at 17 to the bar 1 to be free for outward movement, and bearing against the end of the bar when forced inwardly.

The bar 1 is looped or divided between its ends into two legs 19 as shewn in Fig. I, both to give access to the spikes 2, 3 and to accommodate the cradle 20 which carries the drill. The cradle is

mounted in the frame by transverse trunnions 21, which enter opposite holes 22 in the legs of the frame; there being a number of such holes to enable the cradle to be adjusted for height.

This pivotal connection of the cradle to the frame, and the pivotal engagement of the spikes with the rock on an axis A at right angles to, and intersecting, the axis B of the trunnions gives the cradle (and the drill carried by it) universal movement about the intersection of said axes, so that the drill 23 and the drilling tool 24 can be directed to any point on the rock face within range. The pointing of the drill hole is effected by adjusting the frame 1 relatively to the collar of the hole and adjusting the cradle 20 up or down the frame.

The legs 19 of the bar are made telescopic; and after being adjusted for length, are fixed by pins 25 passing through holes 26.

Means are provided for adjustably securing the cradle 20 to the frame 1. For this purpose in the construction shewn, the cradle is provided with a quadrant 27 curved to a radius from the axis of the cradle trunnions 21. A clamp element 28 is applied to the column in the same way as the cradle; that is to say, it is formed with trunnions 29 which enter the holes 22 in the side members 19 of the frame. The clamp member can thus be moved up or down the bar with the cradle.

The clamp element is fitted with a clamp screw or equivalent device which engages the quadrant and upon being tightened up grips the quadrant to secure the cradle in the required angular position in relation to the bar. In the example shewn a hand screw 30 rotatably mounted in the clamp element 28 engages a tapped hole in the shoe 31. The latter is embraced by a stirrup 32 which retains the nut on the quadrant 27; the shoe and stirrup being held together by the screw 30. The shoe is formed with teeth 33 to engage teeth 34 formed on the underside of the quadrant 27, and the part 35 carrying said teeth 33 may be extended on each side of the shoe as indicated. 36 is a compression spring inserted between the clamp element 28 and the shoe 31.

In setting the drill, the shoe 31 is left free from the quadrant 27 and the drill being held by its handle 37 can be freely directed to the desired point on the rock. The hand screw 30 is then rotated to bring the teeth 33 of the shoe 31 into engagement with the teeth 34 of the quadrant 27 so securing the drill against vertical tilting movement.

It will be observed that the locking of the clamp element 28 and the cradle 20 also pulls said parts together and thus causes their trunnions to seat firmly in the holes 22. The cradle is thus rigidly supported in the frame 1 notwithstanding wear of the trunnions and the holes 22. The same result is attained by causing the shoe 31 to bear on top of

the quadrant and making the hand screw 30 force apart the clamp element and the cradle. Should the tool travel up or down the rock whilst collaring the hole, the shoe 31 is slackened to release the quadrant 27 and thus allow the drill to be reset. When the nut 31 is so loosened, it is freed from engagement with the teeth 34 by expansion of the compression spring 36. After the hole has been drilled for some distance, the shoe 31 may be freed from the quadrant. The whole drill is then again free to move universally about the axes A and B, thus permitting the tool 24 to be used successfully even when somewhat bent.

The distance between the bases of the cradle trunnions 21 is less than the distance between the legs 19 of the frame; whilst one of the trunnions, viz;- that visible in the drawing, is elongated. Upon inserting this long trunnion fully into the hole 22 in one side of the bar, the other trunnion may be brought within the bar and opposite its hole, and then passed into the latter by moving the cradle 20 laterally to a central position in the frame. The cradle is then locked in such position by suitable means such as the saddle-piece 38 which is slipped over the long trunnion. The saddle piece is cut away at 39 to fit the rounded surface of the adjacent leg 19 and is thereby held from tilting out of place.

The clamp element 28 is similarly formed with a

long trunnion 29 and a short trunnion 29a. Said long trunnion 29 is preferably on the opposite side of the structure from the long trunnion 21 of the cradle 20 so that when the element 28 and the cradle are secured together, their short trunnions lock against one another and thus prevent lateral movement of both of said parts independently of the saddle piece 38. Said saddle piece however is of value in preventing displacement of the cradle when running the drill with the quadrant 27 free from the shoe 31. The aperture 40 through which the hand screw 30 passes is elongated as shewn to permit the necessary lateral relative movement of the clamp element 28 and the cradle 20 when engaging or releasing their trunnions from the frame.

In the modified cradle adjustment shewn in Fig. IV the under surface of the quadrant 27 and the contacting surface of the shoe 31 are plain. In the nut is mounted a worm 41 actuated by a hand wheel 42 whilst the upper edge of the quadrant is formed with worm teeth 43 which are engaged by the worm 41. With this arrangement the quadrant 27 can be moved when the shoe 31 is tightened up by the hand screw 30, and the drill can be more accurately set than with the first described device.

The drill cradle shewn is designed for carrying a jack hammer 23 by means of a slipper 44. One of said parts, e.g. the cradle, is a tube formed with a longitudinal slot 45; and the other, e.g. the slipper 44, is a tube or cylindrical piece sliding in the tubular cradle. The slipper is formed with

a lateral lug 46 which passes through the slot 45 and carries clamps 47 in which the jack hammer 23 is clipped.

The feed arrangement comprises a spring capable of considerable deformation and adapted to press on the drill (or a part associated therewith such as the slipper) to feed it forward, and an anchor or abutment to which the other end of the spring is secured. Provision is made for moving forward the anchor or abutment, which movement stresses the spring and supplies the energy for maintaining the pressure and the feeding movement of the drill between the advances of the anchor.

In the constructions shewn the anchor is arranged ~~to~~ be pressed forward periodically by hand and to be locked to the cradle after each such movement. Referring to Figs. I, V, and VI, 48 indicates the anchor consisting of a rod extending through the slipper and extended laterally towards each end to form pawls 49, 50, capable of engaging with a rack 51 formed by cutting notches in one side of the cradle slot 45. A coil spring 52 is secured at one end to a boss 53 on the rod 47 and at the other end 54 to the slipper, and is initially twisted, thus giving the pawls the required tendency to enter and engage with the rack 51. The rotational movement of the pawls is limited by means of a slot 55 in the slipper tube, through which the rear pawl 50 projects and which is elongated to permit relative longitudinal movement of the rod 47 and the slipper 44. To permit

the anchor rod 48 to be fed forward the pawls are rotated out of the rack 51 before said rod is pressed forward. The same spring 52 acts as the feed spring, being compressed when the rod 48 is pushed forward and engaged with the rack, as indicated in Fig. VI. The spring 52 is thereby caused to press on the slipper 44 to urge the drill forward.

The provision of a pawl at each end of the anchor rod 48 permits the length of feeding movement to exceed the length of the rack 51, and the pawls being so spaced that before the forward pawl 49 leaves the rack the rear pawl 50 engages with the same. When the rear pawl is within the cradle tube 20 the anchor rod is actuated by a tool which can also pass into the cradle tube and which is illustrated in Fig. VII. Said tool consists of a handle 56 and a shank 57. The latter is hollowed at the end 58 and slotted out at 59 to engage the pawl 50. It can thus both press forward and rotate the rod 48 and forms virtually a removable extension of said rod. The side of the cradle slot 45 is sloped away at 60 to facilitate the pawls 49 and 50 entering said slot.

The spring 52 is made of considerable length so as to maintain a fairly uniform pressure between each feeding movement of the anchor 48. By compressing the spring to a greater or less extent at each movement the average feeding pressure may be satisfactorily adjusted for the work in hand. In case the drill hesitates or stops because of too high feeding pressure, the drill can be pulled back by hand against the spring to permit a few blows to be struck, when

the drill will clear itself.

In the construction of Fig. VII, the bar 61 forms the cradle. The slipper 44 is a tube which is supported on the bar 61 by an end flange 62 and by a flange 63 on the anchor 48. A feather 64 which enters a longitudinal slot 65 in the bar prevents the slipper from rotating.

The anchor 48 is annular and encircles the bar 61 and is provided with a hand piece 66 for pushing and rotating it. The spring 52 is positioned between the anchor and the front end of the slipper and is secured at 54 to both of said parts so that it may exert torque on the anchor to hold in position the pawl device 67 by which the anchor engages the bar, Said pawl 67 engages the rack 51 formed in the surface of the bar. The teeth of the rack 51 extend round a short arc of the circumference of the bar so that by rotating the hand piece 66 the pawl 67 is passed on to the plain part 68 of the bar and free from the rack 51, to enable the slipper to be retracted. Rotational movement of the anchor is limited by the stop 69, engaging a slot 70 in the slipper.

I am aware that cushioning springs have been inserted between percussive drills and their feeding mechanism, but they have been short and stiff springs adapted simply to absorb shock and incapable of sufficient elongation to act themselves as feeding means.

Referring to Fig. IX, 71 is a water nozzle mounted on the quadrant 27 or other convenient part of the cradle 20, as by a clip 72. It is supplied with water through a hose 73 and may include a tap 74. Said nozzle is rigidly alined in the plane of the tool 24 and is pivoted to the clip 72 at 75 by

a pivot which permits it to be adjusted in said plane The pivot connection is made sufficiently stiff to hold the nozzle where it is placed, and the nozzle is formed with a tail 76 which can be struck to adjust the nozzle in the plane of the drill. The jet of liquid from the nozzle is thus always directed in the plane of the tool and can be adjusted onto or about the collar of the hole by tapping the tail 76 up or down.

HAVING now particularly described and ascertained the nature of my said Invention and in what manner the same is to be performed, I declara that what I claim is :-

1. The combination with a drill bar, of a spike at the end thereof adapted to enter the rock to hold the bar, said spike being free for outward movement and adapted to be forced outwards by a hammer blow.

2. The combination with a drill bar, of a spike at the end thereof adapted to enter the rock to hold the bar, said spike being free for outward movement and providing an exposed inner end adapted to be struck directly by a hammer.

3. The combination with a drill bar, of a spike at the end thereof, said spike being free for outward movement and means for holding the spike extended from the bar.

4. The combination with a drill bar, of a spike at the end thereof, said spike being free for outward movement and means for forcibly extending the spike and holding it extended.

5. The combination with a drill bar, of a spike at the end thereof, said spike being threaded through a nut mounted on the bar and said nut being free for outward movement with respect to the bar.

6. The combination with a looped drill bar, comprising end pieces and side legs, of alined spikes mounted one in each end yoke, said spikes being free for outward movement and their inner ends being exposed to be struck by a hammer, one of said spikes being provided with means for holding it extended.

7. The combination with a drill bar of an offset end pivoted thereto and a spike carried by said offset end and adapted to be struck by a hammer and thereby driven into the rock.

8. The combination with a drill bar, of a rock engaging spike mounted for endwise movement in the end thereof, and a wedge passing transversely through the bar and engaging the spike to project the same.

9. A drill mounting consisting of a looped bar provided at its ends with alined spikes, a cradle adapted to receive a power drill in the plane of said spikes and arranged for feeding movement of said drill, and means for adjustably clamping the cradle to the bar.

10. A drill mounting consisting of a looped bar provided at its ends with alined spikes, a drill cradle adapted to receive a power drill, said cradle engaging the bar by means of trunnions transverse to the axis of the spikes and taking into holes in the legs of the bar, the distance between the bases of the trunnions being less than the inside width of the bar loop whereby one trunnion may first be fully entered into its leg and the other trunnion thereafter entered into its leg by lateral movement of the cradle, and means to lock the cradle against lateral movement in the bar.

11. A drill mounting consisting of a looped bar provided at its ends with alined spikes, a drill cradle adapted to receive a power drill, said cradle

engaging the bar by means of trunnions transverse to the axis of the spikes and taking into holes in the legs of the bar, the distance between the bases of the trunnions being less than the inside width of the bar loop, clamping means to position the cradle angularly with respect to the bar, said means also locking the cradle against lateral movement in the bar.

12. A drill mounting consisting of a looped bar provided at its ends with alined spikes, a drill cradle adapted to receive a power drill, said cradle engaging the bar by means of trunnions transverse to the axis of the spikes and taking into holes in the legs of the bar, the overall length of the trunnion being less than the inside width of the bar loop, a clamping member adjustable up and down the bar, co-operating means on said member and the cradle for positioning the cradle angularly with respect to the bar, said means exerting tension or compression between the cradle and the clamp member.

13. A drill mounting consisting of a looped bar, the legs of which are formed with a series of opposite holes, a drill cradle provided with trunnions to engage said holes, a clamp element provided with trunnions to engage said holes, a quadrant on the cradle and a screw or like actuated element on the clamp element adapted to engage the edge of said quadrant.

14. A drill mounting consisting of a looped bar, a cradle mounted, by means of trunnions, in said bar, a toothed quadrant on the cradle, a clamp element mounted in the bar, a hand screw passing through the clamp element and a shoe threaded on the screw and formed with teeth for engaging the quadrant.

15. A drill mounting consisting of a looped bar, a cradle mounted, by means of trunnions, in said bar, a toothed quadrant on the cradle, a clamp element mounted in the bar, a hand screw passing through the clamp element, a shoe threaded on the screw and formed with teeth for engaging the quadrant and a [illegible] spring tending to separate the nut and the quadrant.

16. A drill mounting consisting of a looped bar, a cradle having long and short trunnions for mounting it in said bar, a quadrant on the cradle, a clamp element having long and short trunnions for mounting it in said bar, means carried by the clamp element for engaging the quadrant, said means being arranged for movement laterally with regard to the quadrant.

17. A drill mounting consisting of a looped bar, a cradle mounted, by means of trunnions, in said bar, a quadrant on the cradle formed with worm teeth, a clamp element mounted in the bar, and a worm supported by the clamp element and adapted to engage the worm teeth on the quadrant.

18. A drill mounting consisting of a looped bar, a cradle mounted, by means of trunnions, in said bar, a quadrant on the cradle formed with worm teeth, a clamp element mounted on the bar, a shoe

adjustably mounted on the clamp element and adapted to engage the quadrant frictionally, and a worm carried on the shoe, and adapted to engage the teeth of the quadrant.

19. The combination with a hammer drill, of a cradle for feeding the same, in the line of the drill tool, and a water jet mounted on the drill and pivoted for movement in the plane of the tool.

20. A feed device for a hammer drill, consisting of a cradle on which the drill is slidable for feeding movement, a feed spring adapted to feed the drill forward through a substantial space, and means for applying feeding movement through the spring.

21. A feed device for a hammer drill, consisting of a cradle on which the drill is slidable for feeding movement, means for anchoring the spring to the cradle to apply pressure through the spring to the drill, said anchoring means permitting periodical shifting of the anchoring point.

22. A feed device for a hammer drill consisting of a cradle on which the drill is slidable for feeding movement and provided with a rack, a pawl device movable over and engaging the same, and a feed spring between the pawl device and the drill.

23. A feed device for a hammer drill consisting of a cradle on which the drill is slidable for feeding movement and provided with a rack, a spring anchor movable over the same, a feed spring between the anchor and the drill, said anchor having pawls spaced one behind the other in the

direction of feed to a substantial extent.

24. A feed device for a hammer drill consisting of a cradle provided with a rack, a slipper slidable on the cradle for feeding movement and prevented from rotating thereon, an anchor slidable with respect to the slipper and provided with a pawl for engaging the rack and a spring arranged between the anchor and the slipper to feed the latter forward.

25. A feed device for a hammer drill consisting of a cradle provided with a rack, a slipper slidable on the cradle for feeding movement, and prevented from rotating thereon, an anchor slidable with respect to the slipper and provided with a pawl for engaging the rack, and a spring secured to the anchor and the slipper and serving to feed the latter forward, said spring being torsioned to cause the pawl to engage the rack.

26. In a feed device for a hammer drill, the combination of a cradle having a slot and formed with a rack, a tubular slipper sliding thereon and having a lug extending through said slot, an anchor rod in the slipper and provided with a pawl to engage the rack and a feed spring between the anchor rod and the slipper.

27. A feed tool for a feed device as claimed in claim 26, having a shank adapted to enter the slipper and engaging the anchor bar for pressing forward and rotating the same.

28. A feed device for a hammer drill comprising a cradle formed with a rack, a tubular slipper thereon adapted to carry the drill and prevented from rotating on the bar, a tubular anchor on the bar and provided with a pawl to engage the rack and a feed spring between the

anchor and the slipper.

29. A feed device for a hammer drill comprising a circular bar cradle formed with rack teeth extending around a segment of the circumference of the bar, a tubular slipper thereon adapted to carry the drill and splined to the bar, a tubular anchor on the bar provided with a spring pawl to engage the rack, said anchor being rotatable on the bar to disengage the pawl from the rack, a spring for transmitting feeding movement from the anchor to the slipper, and being torsioned to retain the pawl in the rack, and stop devices limiting rotatiom of the anchor with respect to the slipper.

30. A drill bar provided with retaining spikes substantially as described with reference to Fig. I.

31. A drill bar provided with a retaining spike substantially as described with reference to Fig. II.

32. A drill bar provided with a retaining spike substantially as described with reference to Fig. III.

33. The drill mounting substantially as described with reference to Fig. I.

34. The drill mounting shewn in Fig. I modified substantially as described with reference to Fig. IV.

30

The Applicant, therefore, applies for leave to file a Specification of the Invention pursuant to Part I of the Inventions and Designs Regulation, 1894.

I, the Applicant abovenamed, do declare that the facts stated in this Application are true to my knowledge, except as to matters stated on information and belief, and as to those matters I believe them to be true.

Dated this 12th day of May, 1919.

REMFRY & SON
ATTORNEYS FOR THE APPLICANT

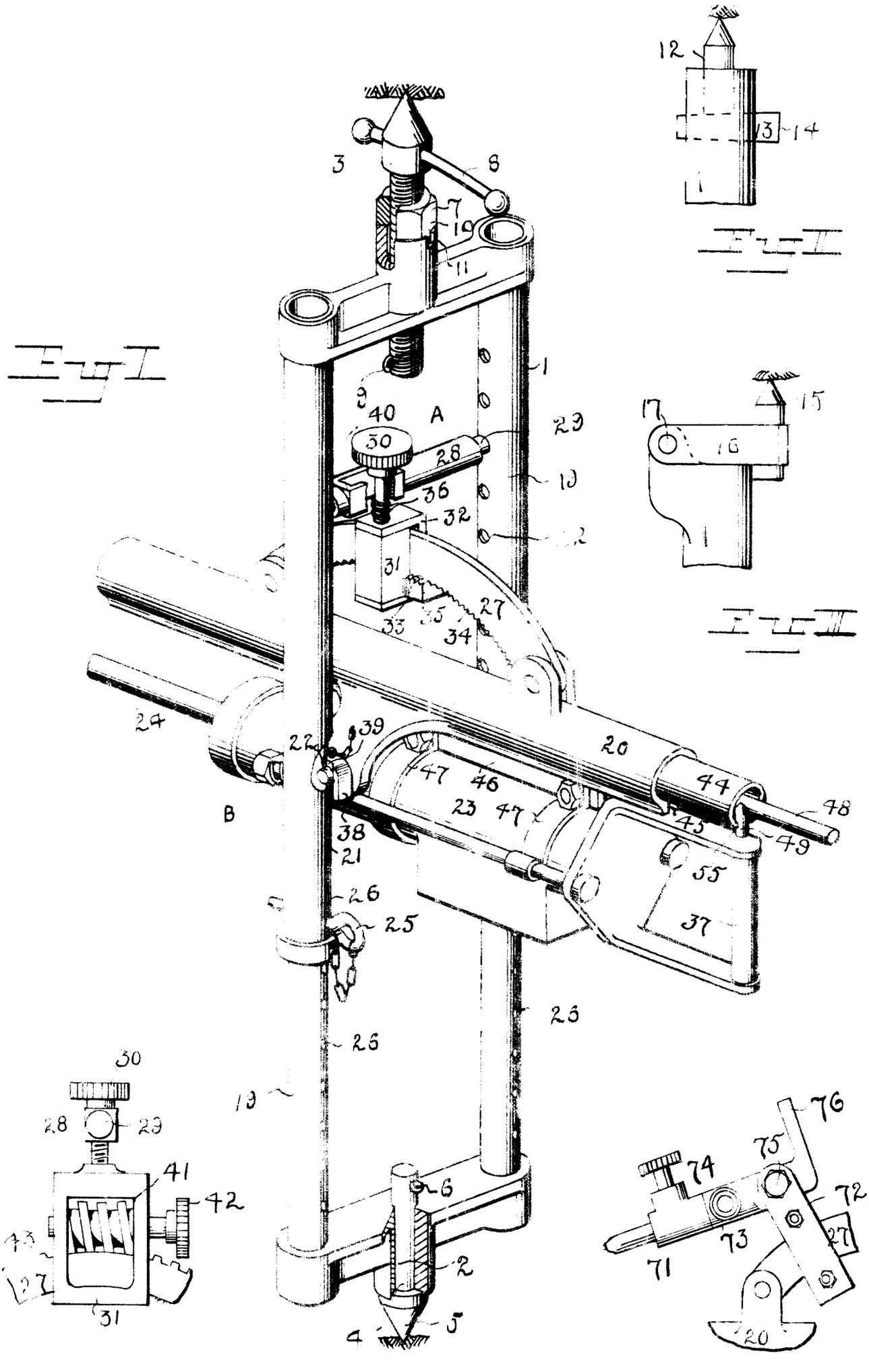

Fig I

Fig II

Fig III

Fig IV

Fig V

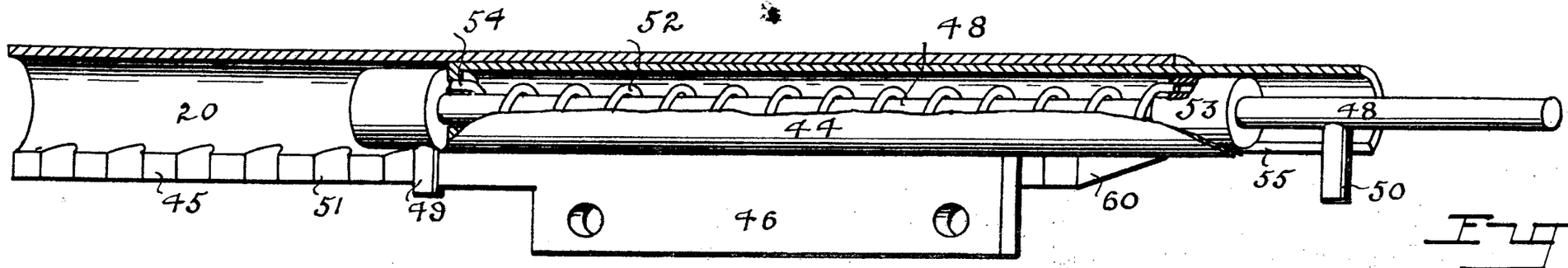

Fig V

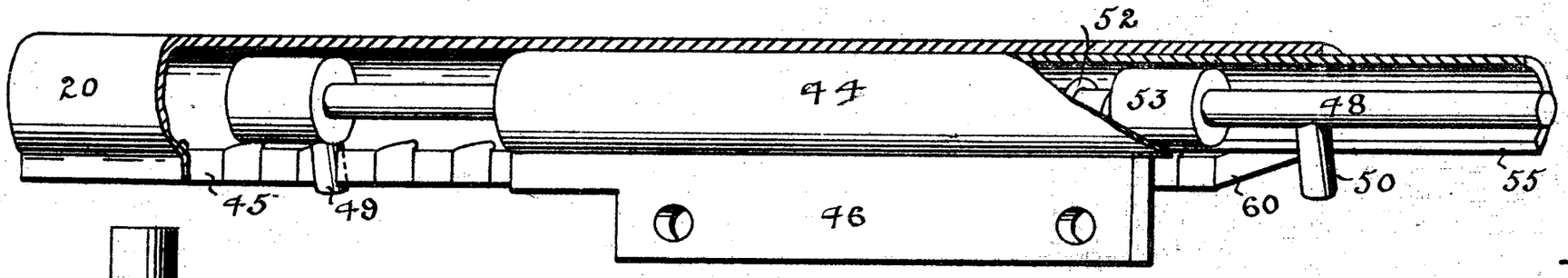

Fig VI

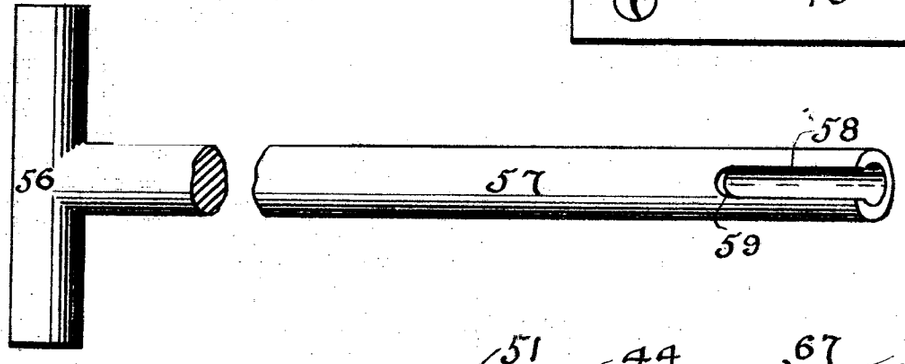

Fig VII

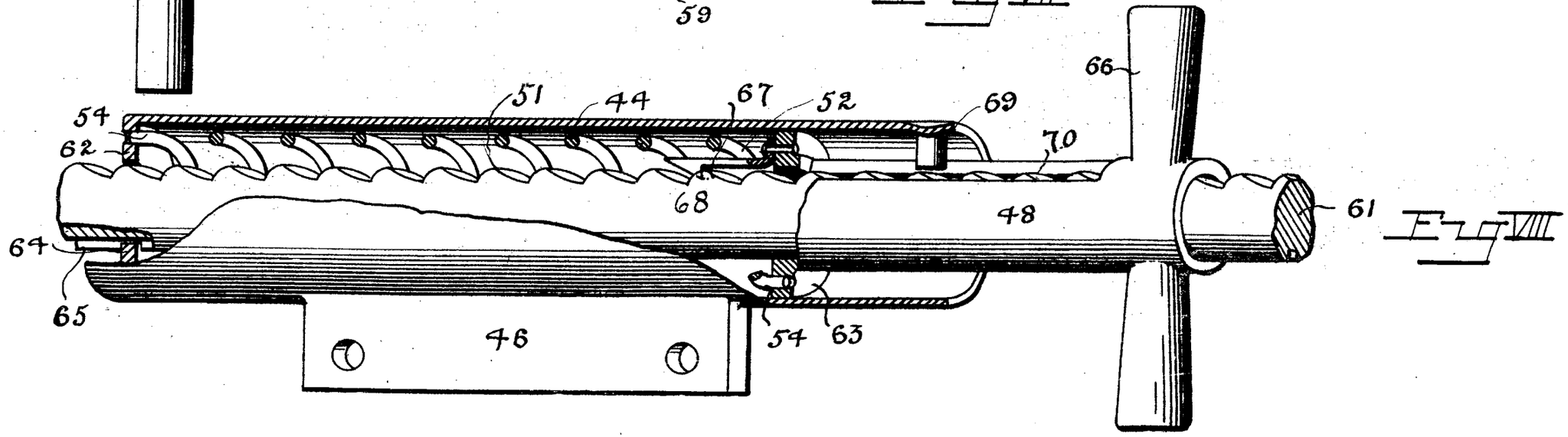

Fig VIII

2/13 Draft. 2 Nov

by m/2-19-11

G. R. S.VI—s.-v/21]

Government of Mysore.

GENERAL DEPARTMENT.

Register No. 1 of 1919-20 G 23294

Bangalore, the 10th April 1920

WHEREAS an application, dated the 8th July 1919 and received on the 11th July 1919, has been submitted under Section 5 of the Mysore Inventions and Designs Regulation, 1894, by Messrs. Remfry & Co., Calcutta, on behalf of Mr. Sefrin Fisher, the inventor,

(hereinafter referred to as "the applicant") for leave to file a specification of an invention for "Improvements in mounting and feeding rock drills" by Mr. Sefrin Fisher, Underground Manager, of Ferreira Deep Ltd., Johannesburg, Transvaal Province of the Union of South Africa.

And whereas the applicant has duly complied with all the requirements of Section 5 of the said Regulation;

The Government of Mysore are pleased, under Section 6 of the said Regulation, to authorize the applicant to file a specification of the said invention in accordance with the provisions of the said Regulation.

ORDERED, that the applicant be, and he is hereby, informed accordingly.

By Order of the Government of Mysore,

Rec 26.3.20

DCS 25/3/20.

for Chief *Secretary to the Govt. of Mysore,*
~~*General Department.*~~

MB 23.3.20

25/3/20

Certified that the fees prescribed in the fourth schedule to the Mysore Inventions and Designs Regulation, 1894, in respect of the application for leave to file the said specification and of the filing thereof have been paid by the applicant, and that the specification hereinbefore described has been duly filed in accordance with the provisions of Section 8 of the said Regulation on this the 19th day of April 1920.

DCS 20/4/20.

for Chief *Secretary to the Govt. of Mysore,*
~~*General Department.*~~

MB

(Section 8 of the Inventions and Designs Regulation, 1894.)

8. (1) If within six months from the date of an order under Section 6, Sub-Section (1), or within such further time, not exceeding three months, as the Government of Mysore, in its discretion, may, on cause shown to its satisfaction and on payment of the fee prescribed in that behalf in the fourth schedule, see fit to allow, the applicant causes a specification of his invention to be filed in manner by this Part required, and the fee prescribed in the fourth schedule in respect of the filing of the specification to be paid, the applicant shall, subject to the other provisions of this Part, be entitled to the exclusive privilege of making, selling and using the invention in the Territories of Mysore, and of authorizing others so to do, for a term of fourteen years from the date of the filing of the specification.

(2) But an exclusive privilege in respect of an invention of a new manufacture shall, notwithstanding anything in Sub-Section (1), cease, if the inventor fails to pay, within the time limited in that behalf by the fourth schedule, any fee prescribed in that schedule in respect of the continuance of the privilege.

(3) If, nevertheless, in any case, by accident, mistake, or inadvertence, an inventor fails to pay any such fee within the time so limited, he may apply to the Government of Mysore for an enlargement of the time for making the payment.

(4) Thereupon the Government of Mysore may enlarge the time accordingly, on payment of the fee prescribed in that behalf in the fourth schedule, and subject to the following conditions, namely :—

(*a*) the time for making a payment shall not in any case be enlarged for more than three months ; and

(*b*) if any suit is instituted in respect of an infringement of the exclusive privilege committed after a failure to make a payment within the time limited for the making thereof and before the enlargement of that time, the Court disposing of the suit may, if it thinks fit, refuse to award or give any damages in respect of the infringement.

W D 02300—GPB.—500—21-11-16

G. R. S. VI—s-v/13]

DRAFT.

2 drafts

SUBJECT.....

.....

.....

Section. J. W
File No. 12-19
Serial No. 12

No. G.23295 one

Diary No. of letter replied to... 16348

To

Messrs Rowley and Son
Calcutta
.....

GENERAL AND REVENUE SECRETARIAT,
( )
, *the*.....*191*

GENTLEMEN,

With reference to your letter ~~No.~~.....
dated the 8th July 1919.
I am directed to forward herewith G. O.
~~No.~~ G. 2329 dated the 2 10/4
191 , authorizing Wm Legum Fisher Underground
Manager of Ferreira Deep Ltd Johannesburg
Transvaal Province Union of South Africa
to file a specification of an invention for
'Improvements in mounting
and feeding Rock drills'
.....
and to request that the fact may be communicated to the party concerned.

~~I have, etc.~~ yours faithfully

Date of issue..... 10/4

Signed by..... W Dcg

dcg
3/4/20

for Chief Secretary to Government.

W 11/4/20

REGISTERED

18028 25
Fm. 12-19-13

To

THE ~~CONTROLLER OF PATENTS~~, SECY TO THE GOVT OF MYSORE,
~~PATENT OFFICE~~, GENL. & REV. DEPTS.
~~CALCUTTA~~. BANGALORE,
MYSORE

FROM

REMFRY & SON,
PATENT & TRADE-MARK ATTORNEYS,
CALCUTTA.

Dated CALCUTTA, the 14th April 1920.

DEPT.	P.	FILE LR.	M.
FILE INDICATION			
Mysore Pats. (Genl)			

SIR,

re S. FISHER, (MYSORE)

No. 1/19-20 *dated*

Pursuant to the Order granting leave in this matter dated 10th April,1920, Register No. 1 of 1919-20, we have the honour to forward herewith 4 copies of the Specification of SEGUIN FISHER, Underground Manager, of Ferreira Deep Limited, Johannesburg, Transvaal, Province of the Union of South Africa, in respect of his Invention for "IMPROVEMENTS IN "MOUNTING & FEEDING ROCK DRILLS".

The abovementioned Order is enclosed and we solicit the favour of your filling in the Certificate at foot thereof and having same signed.

A Post Office Order for Rs.30/- is sent today.

We have the honour to name our Office in Calcutta as address for service under the Act.

We have the honour to be,
Sir,
Your very obedient servants,

Enclos:-
4 Specns.
Order.

By P.O.O:-
Rs.30/-/-.

I.M.B.

P/O (Genl.) 1,000—7-6-18 [4-2-14—17-3-11].

NOTE The following certificate must be signed in all cases. If the Bill bears date within the 15th of the month, the word "current" may be changed to "last." The Treasury Officer shall refuse to encash a bill unless the proper certificate is signed.

I certify that my Detailed Contingent Bill for all contingent charges drawn by me prior to the 1st of the current month has been forwarded on with all necessary vouchers to the Head of my Department for countersignature and transmission to the Comptroller of Mysore.

The

Office of payment. Name stamp of the office of issue.

D COUPON. The remitter may write here any communication to the payee.

" 30 A. — R S. Fisher. (Mysore)
No 1/19-20.
(As per our letter dated 14/4/20)
Remitter.
19.4.20

Do M D Bmath

ing Officer.

GPB—2,000—17-1.16

Finl. 22] ABSTRACT CONTINGENT BILL.

NOTE.—If this Bill is headed with any other month than that in which it is presented for payment, or if the certificate overleaf regarding submission of detailed Bills is not signed the Treasury Officer must return it for correction or for the requisite certificate.

Government of Mysore | Bill for Contingent Charges of | Month of

Head of Service | Voucher No.

Nos. of Sub-Vouchers	Description of Charge and date of authority (where special sanction is necessary)	* Rs.	a.	p.	Rs.

The total of this Bill must be entered in both words and figures

In words Rupees ...

* This column should, when charges are described, exhibit the component parts of the detailed head. The total of each detailed head will be entered in the next column.

N. B.—The Treasury Officer will make payments on this form as often as required, but the drawer should be careful to include in the Detailed Contingent Bill of a month only the amount of all abstracts encashed at the Treasury during the month

Dated

Received Contents.

The 191

Drawing Officer.

G.M. 12-19-13(a)

Duplicate.

(To be returned to the General and Revenue Secretariat for being placed in the file.

1. No... 258...

2. Date of Remittance 21 April 1920

3. From whom received... Messrs Remfry & Son, Calcutta...

4. Date of receipt of amount in the General and Revenue Secretariat... 19.4.20...

5. On what account... filing fee for Appl. No 1 of 19-20 and Fisheries Shamshuy, Mineral...

6. Amount (in figures and words)... Rs 30/ ... Rupees Thirty only...

7. The head to which it should be credited.

(To be filled in by the Treasury.)

for Chief Secretary to Government,
~~General Department~~

The above amount has been duly received and credited in the Treasury on this date.

Date 24/4/20

Hd. Acctt. *Treasurer.* *Try. Officer.*

N. B.—Both the counterfoil and the duplicate to be returned to the General and Revenue Secretariat duly signed by the Treasury Department.

G. M. file no. 12-19-14-38

2 copies ——— 3 circ.

GOVERNMENT OF HIS HIGHNESS THE MAHARAJA OF MYSORE.

GENERAL AND REVENUE SECRETARIAT

Bangalore, Dated 22/4/1920

No. G 24144

NOTIFICATION.

(PATENT)

The following specification of an invention has been filed in accordance with Sections 8, 9, 10 and 11 of Regulation XI of 1894 (The inventions and Designs Regulations) and is open to inspection at the Mysore Government Secretariat on application to the Chief Secretary to the Government of His Highness the Maharaja of Mysore, and on payment of a fee of one Rupee.

By Mr. Lepsius Fisher Underground manager, of Ferreira Deep Ltd., ~~From~~ Johannesburg Transvaal Province of the Union of South Africa +

"Improvements in mounting and feeding rock drills"

By Order,

20/4/20

For Chief Secretary to Government.

20.4.20

To

The Compiler, Mysore Gazette, for publication.

735

19

G. R. S. VI—s-v/18

DRAFT.

3 draft

SUBJECT.....

.....

.....

No.

Section. G. R.
File No. 12-19
Serial No. 15

Diary No. of letter replied to 18028

G 24145(2)

GENERAL AND REVENUE SECRETARIAT
( )
, the.....191

To

Messrs. Remfry & Son,
Patent & Trade-Mark Attorneys,
Calcutta.

Date of issue 22/4

Signed by H. Dey

Sir,

With reference to your letter dated 14th April 1920...I am directed to forward copy of a Notification No. G 24144 dated 22/4/20 issued by this Government in regard to the invention filed by you under Regulation XI of 1894 (The Inventions and Designs Regulations.)

The order granting permission to file specification is herewith returned, with the certificate at foot, duly filled in and signed.

Yours faithfully,
~~I have, etc.,~~

Dey
20/4/20
For Chief Secretary to Government.

20.4.20

G. R. S. VI—G/32]

SUBJECT.....

.....

.....

Diary No. of letter replied to.....

GENERAL AND REVENUE SECRETARIAT,
( )
, the *191* .

Date of issue..... 22/4

Signed by.....

Section 4. 2a.
File No. 12-19
Serial No. 16.

No. G 24146-8
on to Each

To

(1) The Superintendent Govt. museum,
(2) The Chief Engineer of Mysore
& (3) The Secretary to the Board for Chemical and industrial research and scientific advice,

Has the honour to forward herewith, for record in his office, a copy of the specification of an invention for "Improvements in mounting and feeding rock drills" by Mr. Seguin Fisher, Underground manager of Ferreira deep Ltd, Johannesburg,

over.

Transvaal Province of the Union of South Africa.

B.O.

20/4/20.

For Chief Secretary to Govt.

20.4.20.

List of enclosure

Copied by

Examined by

WD 86—GPP.—60,000—15-11 16